

APPROVED	O.G. FIG.	
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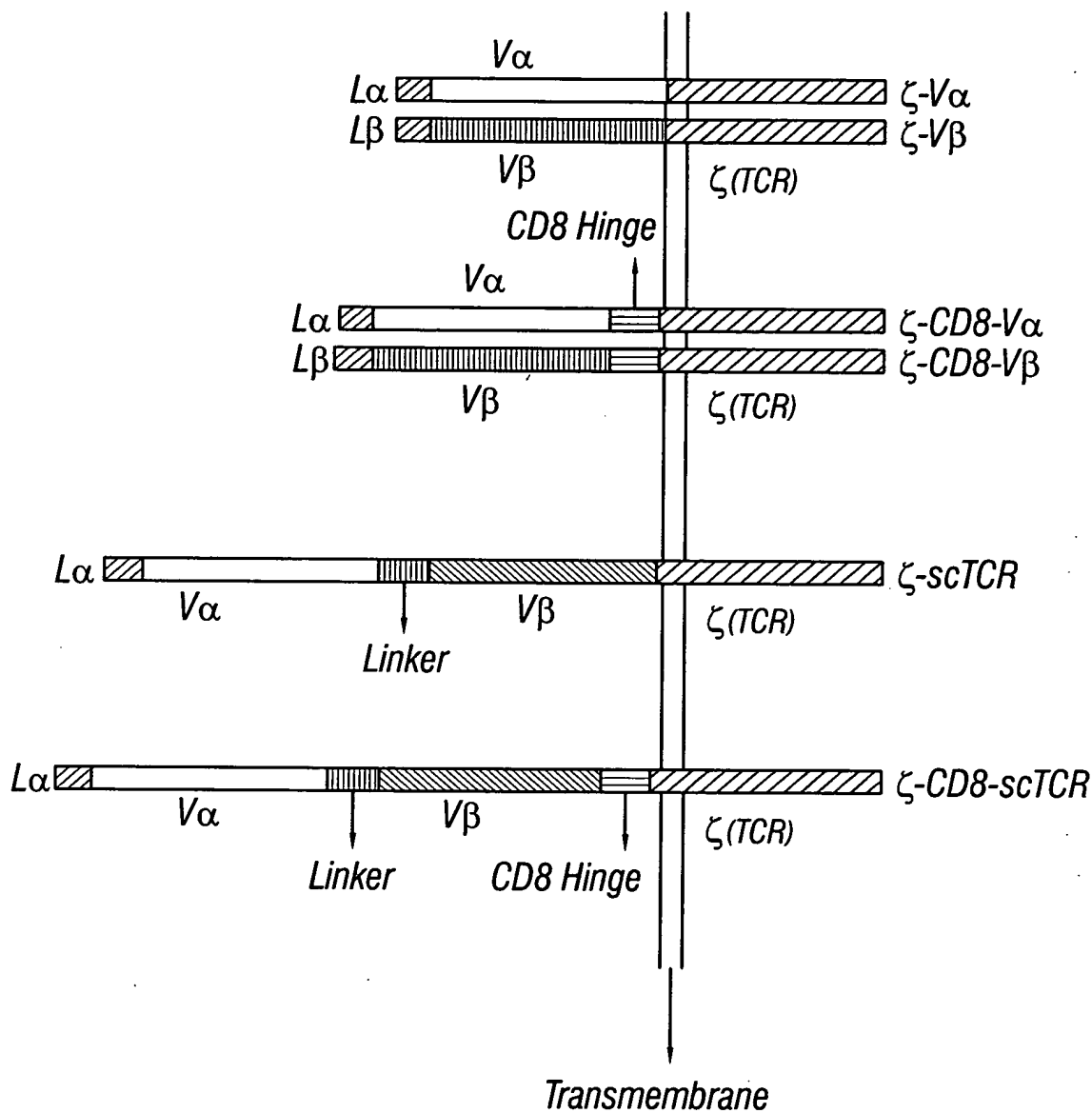


FIG.1

APPROVED	O.G. FIG.
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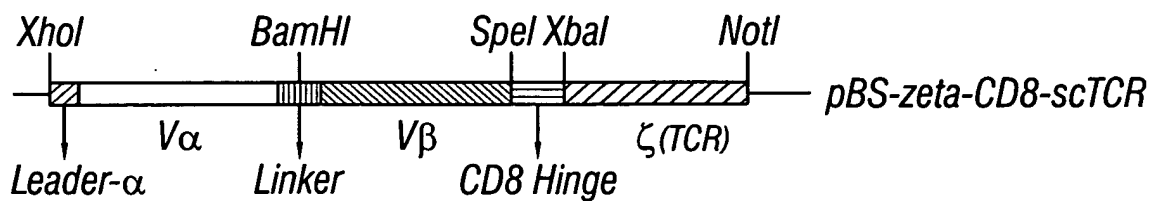
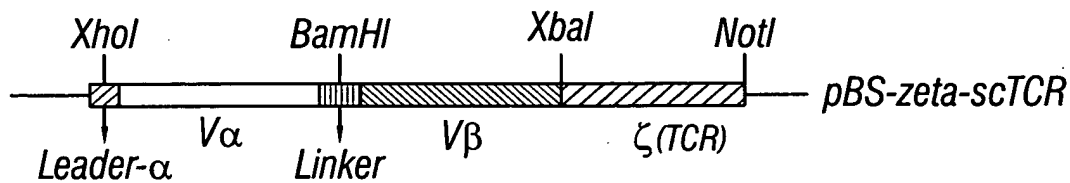
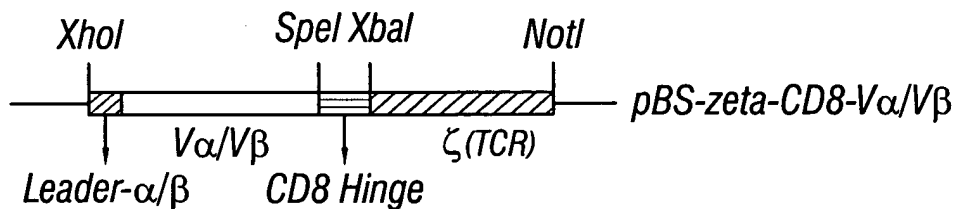
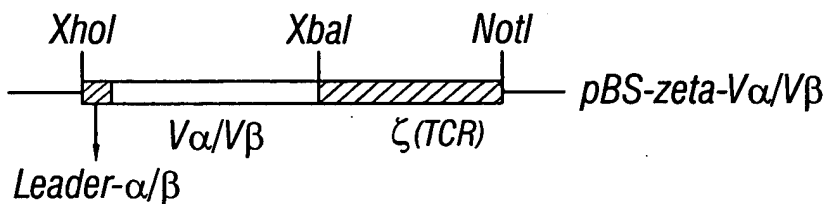
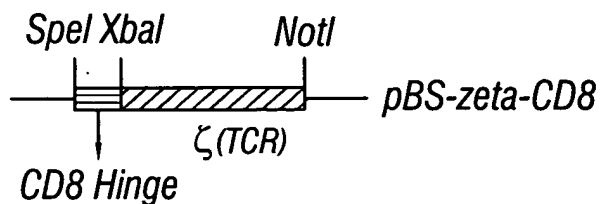
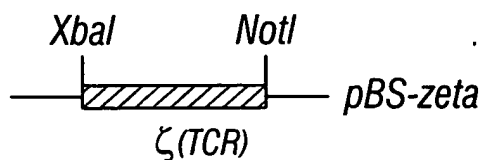


FIG. 2

FIG. 2

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Title: T CELL RECEPTORS FROM HLA TRANSGENIC MICE
 Inventors: Linda SHERMAN and Joseph LUSTGARTEN
 Publication No.: February 1, 2001
 Docket No.: 313332000101

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	9		18		27		36		45		54							
CTC	GAG	ATG	CAG	AGG	AAC	CTG	GGA	GCT	GTG	CTG	GGG	ATT	CTG	TGG	GTG	CAG	ATT	[SEQ ID NO: 1]
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
L	E	M	Q	R	N	L	G	A	V	L	G	I	L	W	V	Q	I	[SEQ ID NO: 2]
	63		72		81		90		99		108							
TGC	TGG	CTG	AAA	GAA	CAG	CAA	GTG	CAG	CAG	AGT	CCC	GCA	TCC	TTG	GTT	CTG	CAG	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
C	W	L	K	E	Q	Q	V	Q	Q	S	P	A	S	L	V	L	Q	
	117		126		135		144		153		162							
GAG	GGG	GAG	AAC	GCA	GAG	CTC	CAG	TGT	AGC	TTT	TCC	ATC	TTT	ACA	AAC	CAG	GTG	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
E	G	E	N	A	E	L	Q	C	S	F	S	I	F	T	N	Q	V	
	171		180		189		198		207		216							
CAG	TGG	TTT	TAC	CAA	CGT	CCT	GGG	GGA	AGA	CTC	GTC	AGC	CTG	TTG	TAC	AAT	CCT	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Q	W	F	Y	Q	R	P	G	G	R	L	V	S	L	L	Y	N	P	
	225		234		243		252		261		270							
TCT	GGG	ACA	AAG	CAG	AGT	GGG	AGA	CTG	ACA	TCC	ACA	ACA	GTC	ATT	AAA	GAA	CGT	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
S	G	T	K	Q	S	G	R	L	T	S	T	T	V	I	K	E	R	
	279		288		297		306		315		324							
CGC	AGC	TCT	TTG	CAC	ATT	TCC	TCC	TCC	CAG	ATC	ACA	GAC	TCA	GGC	ACT	TAT	CTC	
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
R	S	S	L	H	I	S	S	S	Q	I	T	D	S	G	T	Y	L	

FIG. 3A

APPROVED	O.G. FIG.	
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 Inventors: Linda SHERMAN and Joseph LUSTGARTEN
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333	342	351	360	369	378
TGT GCC TCA AAT TCT	GGA GGA AGC AAT GCA AAG CTA ACC TTC	GGG AAA GGC ACT			
C A S N S	G G S N A K L T F	G K G T			
387	396	405	414	423	432
AAA CTC TCT GTT AAA	TCA GGT GGC GGA GGG TCT GGC GGG GGT	GGA TCC GGG GGT			
K L S V K	S G G G S G G G	G S G G			
441	450	459	468	477	486
GGA GGC TCA GAG GCT	GCA GTC ACC CAA AGC CCA AGA AAC AAG	GTG GCA GTA ACA			
G G S E A	A V T Q S P R N K V	A V T			
495	504	513	522	531	540
GGA GGA AAG GTG ACA	TTG AGC TGT AAT CAG ACT AAT AAC CAC	AAC AAC ATG TAC			
G G K V T	L S C N Q T N N H N N M Y				
549	558	567	576	585	594
TGG TAT CGG CAG GAC	ACG GGG CAT GGG CTG AGG CTG ATC CAT	TAT TCA TAT GGT			
W Y R Q D	T G H G L R L I H Y S Y G				
603	612	621	630	639	648
GCT GGC AGC ACT GAG	AAA GGA GAT ATC CCT GAT GGA TAC AAG	GCC TCC AGA CCA			
A G S T E	K G D I P D G Y K A S R P				

FIG. 3B

FIG. 3B

APPROVED	O. G. FIG.	
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657	666	675	684	693	702
AGC CAA GAG AAC TTC	TCC CTC ATT CTG GAG TTG	GCT ACC CCC TCT CAG ACA	TCA		

S	Q	E	N	F	S
L	Q	L	E	L	A
T	P	S	I	T	S

711	720	729	738	747	756
GTG TAC TTC TGT GCC	AGC GGT GAG ACA GGG	ACC AAC GAA AGA TTA	TTT TTC GGT		

V	Y	F	C	A	S
G	E	T	G	T	N
E	R	L	F	F	G

765	774	783	792	801	810
CAT GGA ACC AAG CTG	TCT GTC CTG ACT AGT AAC	TCC ATC ATG TAC TTC	AGC CAC		

H	G	T	K	L	S
V	L	T	S	N	S
I	M	Y	F	S	H

819	828	837	846	855	864
TTC GTG CCG GTC TTC	CTG CCA GCG AAG CCC	ACC ACG ACG CCA GCG	CCG CGA CCA		

F	V	P	V	F	L
P	A	K	P	T	T
T	P	A	P	R	P

873	882	891	900	909	918
CCA ACA CCG GCG CCC	ACC ATC GCG TCG CAG	CCC CTG TCC CTG CGC	CCA TCT AGT		

P	T	P	A	P	T
I	A	S	Q	P	L
S	L	R	P	S	S

927	936	945	954	963	972
TCT AGA GAT CCC AAA	CTC TGC TAC CTG CTG	GAT GGA ATC CTC TTC	ATC TAT GGT		

S	R	D	P	K	L
C	Y	L	L	D	G
I	L	F	I	Y	G

FIG. 3C

FIG. 3C

APPROVED	O.G. FIG.	
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981	990	999	1008	1017	1026
GTC ATT CTC ACT GCC TTG TTC CTG AGA GTG AAG TTC AGC AGG AGC GCA GAC GCC					

V I L T A L F L R V K F S R S A D A					
1035	1044	1053	1062	1071	1080
CCC GCG TAC CAG CAG GGC CAG AAC CAG CTC TAT AAC GAG CTC AAT CTA GGA CGA					

P A Y Q Q G Q N Q L Y N E L N L G R					
1089	1098	1107	1116	1125	1134
AGA GAG GAG TAC GAT GTT TTG GAC AAG AGA CGT GGC CGG GAC CCT GAG ATG GGG					

R E E Y D V L D K R R G R D P E M G					
1143	1152	1161	1170	1179	1188
GGA AAG CCG AGA AGG AAG AAC CCT CAG GAA GGC CTG TAC AAT GAA CTG CAG AAA					

G K P R R K N P Q E G L Y N E L Q K					
1197	1206	1215	1224	1233	1242
GAT AAG ATG GCG GAG GCC TAC AGT GAG ATT GGG ATG AAA GGC GAG CGC CGG AGG					

D K M A E A Y S E I G M K G E R R R					
1251	1260	1269	1278	1287	1296
GGC AAG GGG CAC GAT GGC CTT TAC CAG GGT CTC AGT ACA GCC ACC AAG GAC ACC					

G K G H D G L Y Q G L S T A T K D T					
1305	1314	1323	1332	1341	1350
TAC GAC GCC CTT CAC ATG CAG GCC CTG CCC CCT CGC TAA GCG GCC GCC ACC GCG					

Y D A L H M Q A L P P R * A A A T A					

FIG.3D

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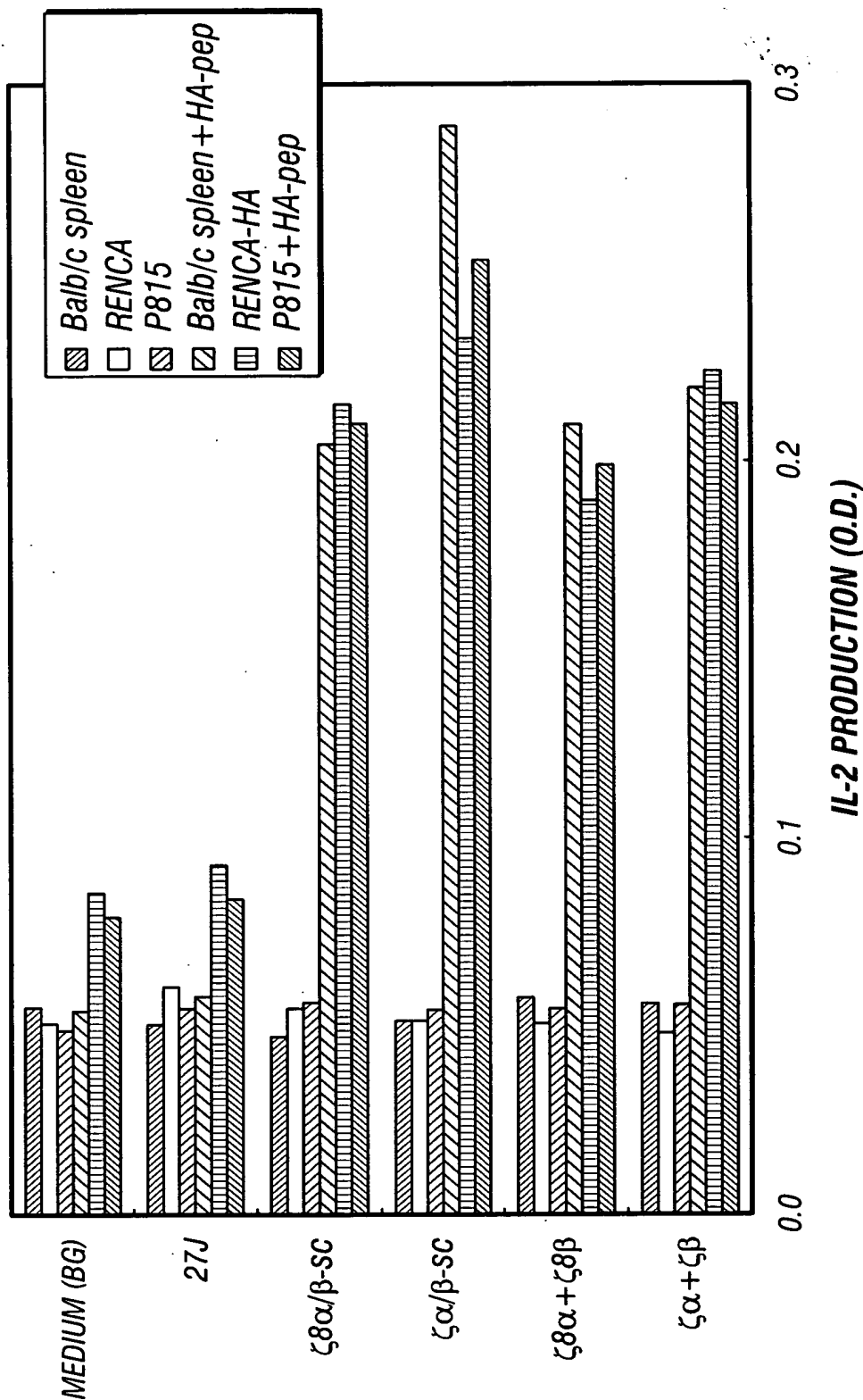


FIG. 4

FIG. 4-139460

APPROVED	O.G. FIG.	
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Title: T CELL RECEPTORS FROM HLA TRANSGENIC MICE
 Inventors: Linda SHERMAN and Joseph LUSTGARTEN
 Application No.: February 1, 2001
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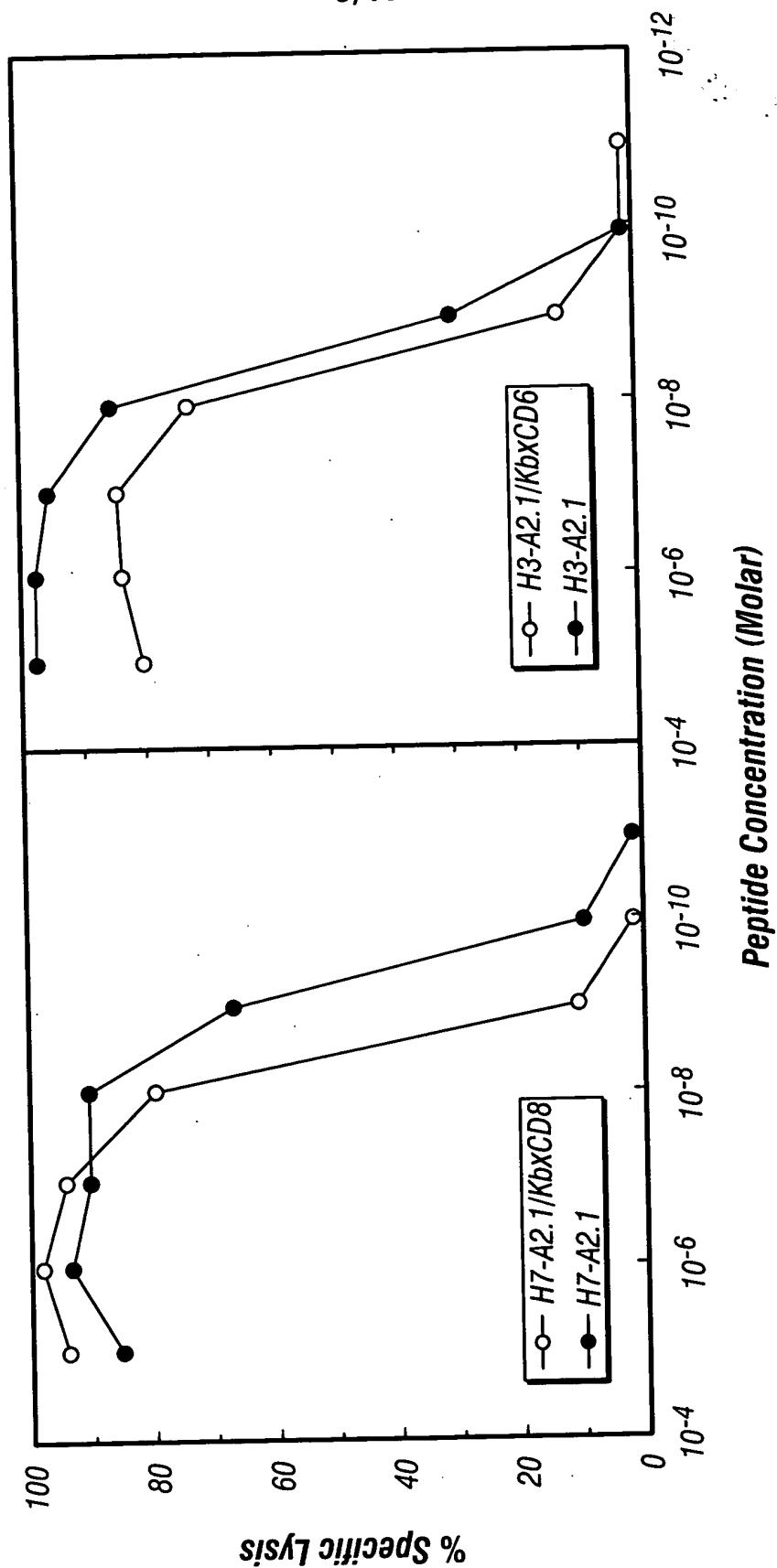


FIG. 5

APPROVED	O.G. FIG.	
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Alpha Groups

Vα1	CCC AAG GCA CTG ATG TTC ATC TTC	[SEQ ID NO: 3]
Vα2	TGA GAC AAA GTC CCC AAT CTC TGA CAG	[SEQ ID NO: 4]
Vα3	CTG CAG CTG CTC CTC AAG TAC TAT TC	[SEQ ID NO: 5]
Vα4.1,2,3	TCC CGG AGA AGG TCC ACA GTT CCT CTT T	[SEQ ID NO: 6]
Vα4.4	GAA GCA GCA GAG GGT TTG AAG CCA CAT AC	[SEQ ID NO: 7]

2.		
Vα5	GGC AGG TCT TCA GTT GCT TAT GAA GGT	[SEQ ID NO: 8]
Vα6	GGT TCC TCT TCA GGG TCC AGA ATA TGT	[SEQ ID NO: 9]
Vα7	GCG AAG AAC TCA CCC TGG ACT GTT CAT	[SEQ ID NO: 10]
Vα8	GAG CTC CAC AGA CAA CAA GAG GAC GCA GCA	[SEQ ID NO: 11]
Vα9	GAG CTG CGA CGT TCC TTA GTG ACT GTG	[SEQ ID NO: 12]

3.		
Vα10	CCT CGT CAG CCT GTT GTC CAA TCC TTC TGG	[SEQ ID NO: 13]
Vα11	CAG CCT CAT CAA TCT GTT CTA CTT GGC T	[SEQ ID NO: 14]
Vα12	CCA CCA GGG ACC ACA GTT TAT CAT TCA A	[SEQ ID NO: 15]
Vα14	ACC TGG AGA GAA TCC TAA GCT CAT CAT	[SEQ ID NO: 16]
Vα15	AGG TCT TGT GTC CCT GAC AGT CCT GGT T	[SEQ ID NO: 17]

4.		
Vα16	CAA GCA AAC ACT GTA GTG CAG AGC CCT TCC	[SEQ ID NO: 18]
Vα17	CAA GAC ATC CAT AAC TGC CCT ACA G	[SEQ ID NO: 19]
Vα18	GTG TAT GAA ACC CAG GAC AGT TCT TAC	[SEQ ID NO: 20]
Vα19	CCG TAT TTC TTT CTT ATG TTG TTT TGG AT	[SEQ ID NO: 21]
Vα20	CAA AGC TCT CCA TCG CTG ACT GTT CAA G	[SEQ ID NO: 22]

FIG. 6A

FIG. 6A

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Beta Groups

1.		
vβ1	ATC TAA TCC TGG GAA GAG CAA AT	[SEQ ID NO: 23]
vβ2	GGC GTC TGG TAC CAC GTG GTC AA	[SEQ ID NO: 24]
vβ3	GTG AAA GGG CAA GGA CAA AAA GC	[SEQ ID NO: 25]
vβ4	GAT ATG CGA ACA GTA TCT AGG C	[SEQ ID NO: 26]
vβ5.1	ACA TAA TCA AAG GAA AGG GAG AA	[SEQ ID NO: 27]
2.		
vβ6	TCC TGA TTG GTC AGG AAG GGC AA	[SEQ ID NO: 28]
vβ7	TAC CTG ATC AAA AGA ATG GGA GA	[SEQ ID NO: 29]
vβ8.1	ATA ACC ATG ACA ATA TGT ACT GG	[SEQ ID NO: 30]
vβ8.2	ATA ACC ACA ACA ACA TGT ACT GG	[SEQ ID NO: 31]
vβ8.3	ATA GCC ACA ACT ACA TGT ACT GG	[SEQ ID NO: 32]
3.		
vβ9	AGC TTG CAA GAG TTG GAA AAC CA	[SEQ ID NO: 33]
vβ10	GAT TAT GTT TAG CTA CAA TAA TA	[SEQ ID NO: 34]
vβ11	ACA AGG TGA CAG GGA AGG GAC AA	[SEQ ID NO: 35]
vβ12	ACC TAC AGA ACC CAA GGA CTC AG	[SEQ ID NO: 36]
vβ13	CAG TTG CCC TCG GAT CGA TTT TC	[SEQ ID NO: 37]
4.		
vβ14	GCC GAG ATC AAG GCT GTG GGC AG	[SEQ ID NO: 38]
vβ15	AGA ACC ATC TGT AAG AGT GGA AC	[SEQ ID NO: 39]
vβ16	CAT CAA ATA ATA GAT ATG GGG CA	[SEQ ID NO: 40]
vβ17	GTA GTC CTG AAA AAG GGC ACA CT	[SEQ ID NO: 41]
vβ18	CAT CTG TCA AAG TGG CAC TTC A	[SEQ ID NO: 42]

FIG. 6B

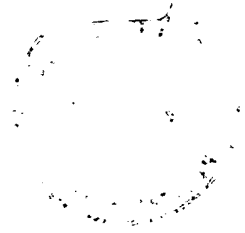
FIG. 6B

APPROVED	O.G. FIG.	
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Title: T CELL RECEPTORS FROM HLA TRANSGENIC MICE
 Inventors: Linda SHERMAN and Joseph LUSTGARTEN
 Application No.: February 1, 2001
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9 18 27 36 45 54
 ATG AAA TCC TTG AGT GTT TCC CTA GTG GTC CTG TGG CTC CAG TTA AAC TGG GTG [SEQ ID NO: 43]

 Met Lys Ser Leu Ser Val Ser Leu Val Val Leu Trp Leu Gln Leu Asn Trp Val [SEQ ID NO: 44]

63 72 81 90 99 108
 CAG AGC CAG CAG AAG GTG CAG CAG AGC CCA GAA TCC CTC AGT GTC CCA GAG GGA

 Gln Ser Gln Gln Lys Val Gln Gln Ser Pro Glu Ser Leu Ser Val Pro Glu Gly

117 126 135 144 153 162
 GGC ATG GCC TCT CTC ACC TGC ACT TCA AGT GAT CGC AAT TTT CAG TAT TTC TGG

 Gly Met Ala Ser Leu Asn Cys Thr Ser Ser Asp Arg Asn Phe Gln Tyr Phe Trp

171 180 189 198 207 216
 TGG TAC AGA CAG CAT TCT GGA GAA GGC CCC AAA GCA CTG ATG TCC ATC TTC TGG

 Trp Tyr Arg Gln His Ser Gly Glu Gly Pro Lys Ala Leu Met Ser Ile Phe Ser

FIG. 7A

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APPROVED	O.G. FIG.	
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225	234	243	252	261	270
GAT GGT GAC AAG AAA GAA GGC AGA TTC ACA GCT CAC CTC AAT AAG GCC AGC CTG					

Asp Gly Asp Lys Lys Glu Gly Arg Phe Thr Ala His Leu Asn Lys Ala Ser Leu					
279	288	297	306	315	324
CAT GTT TCC CTG CAC ATC AGA GAC TCC CAG CCC AGT GAC TCC GCT CTC TAC TTC					

His Val Ser Leu His Ile Arg Asp Ser Gln Pro Ser Asp Ser Ala Leu Tyr Phe					
333	342	351	360	369	378
TGT GCA GTT ATG GAT TAT AAC CAG GGG AAG CTT ATC TTT GGG CAG GGT ACC AAG					

Cys Ala Val Met Asp Tyr Asn Gln Gly Lys Leu Ile Phe Gly Gln Gly Thr Lys					
387					
TTA TCT ATC AAG CCC 3'					

Leu Ser Ile Lys Pro					

FIG. 7B

APPROVED	O.G. FIG.	
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Title: T CELL RECEPTORS FROM HLA TRANSGENIC MICE

Inventors: Linda SHERMAN and Joseph LUSTGARTEN

Filing Date: February 1, 2001

Docket No.: 313332000101

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9 18 27 36 45 54
 ATG GGC TCC AGA CTC TTC TTT GTG GTT TTG ATT CTC ATG TGT GCA AAA CAC ATG [SEQ ID NO: 45]

 Met Gly Ser Arg Leu Phe Phe Val Val Leu Ile Leu Leu Cys Ala Lys His Met [SEQ ID NO: 46]

 63 72 81 90 99 108
 GAG GCT GCA GTC ACC CAA AGT CCA AGA AGC AAG GTG GCA GTA ACA GGA GGA AAG

 Glu Ala Ala Val Thr Gln Ser Pro Arg Ser Lys Val Ala Val Thr Gly Gly Lys

 117 126 135 144 153 162
 GTG ACA TTG AGC TGT CAC CAG ACT AAT AAC CAT GAC TAT ATG TAC TGG TAT CGG

 Val Thr Leu Ser Cys His Gln Thr Asn Asn His Asp Tyr Met Tyr Trp Tyr Arg

 171 180 189 198 207 216
 CAG GAC ACG GGG CAT GGG CTG AGG CTG ATC CAT TAC TCA TAT GTC GCT GAC AGC

 Gln Asp Thr Gly His Gly Leu Arg Leu Ile His Tyr Ser Tyr Val Ala Asp Ser

FIG. 7C

APPROVED	O.G. FIG.	
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Title: T CELL RECEPTORS FROM HLA TRANSGENIC MICE
 Inventors: Linda SHERMAN and Joseph LUSTGARTEN
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225 234 243 252 261 270
 ACG GAG AAA GGA GAT ATC CCT GAT GGG TAC AAG GCC TCC AGA CCA AGC CAA GAG

 Thr Glu Lys Gly Asp Ile Pro Asp Gly Tyr Lys Ala Ser Arg Pro Ser Gln Glu

279 288 297 306 315 324
 AAT TTC TCT CTC ATT CTG GAG TTG GCT TCC CTT TCT CAG TCA GCT GTA TAT TTC

 Asn Phe Ser Leu Ile Leu Glu Leu Ala Ser Leu Ser Gln Ser Ala Val Tyr Phe

333 342 351 360 369 378
 TGT GCC AGC AGC GAT TTC GCC GGG ACA GGG GGC TTC TAT GAA CAG TAC TTC GGT

 Cys Ala Ser Ser Asp Phe Ala Gly Thr Gly Gly Phe Tyr Glu Gln Tyr Phe Gly

387 396
 CCC GGC ACC AGG CTC ACG GTT TCT 3'

 Pro Gly Thr Arg Leu Thr Val Ser

FIG. 7D

FIG. 7D

APPROVED	O. G. FIG.	
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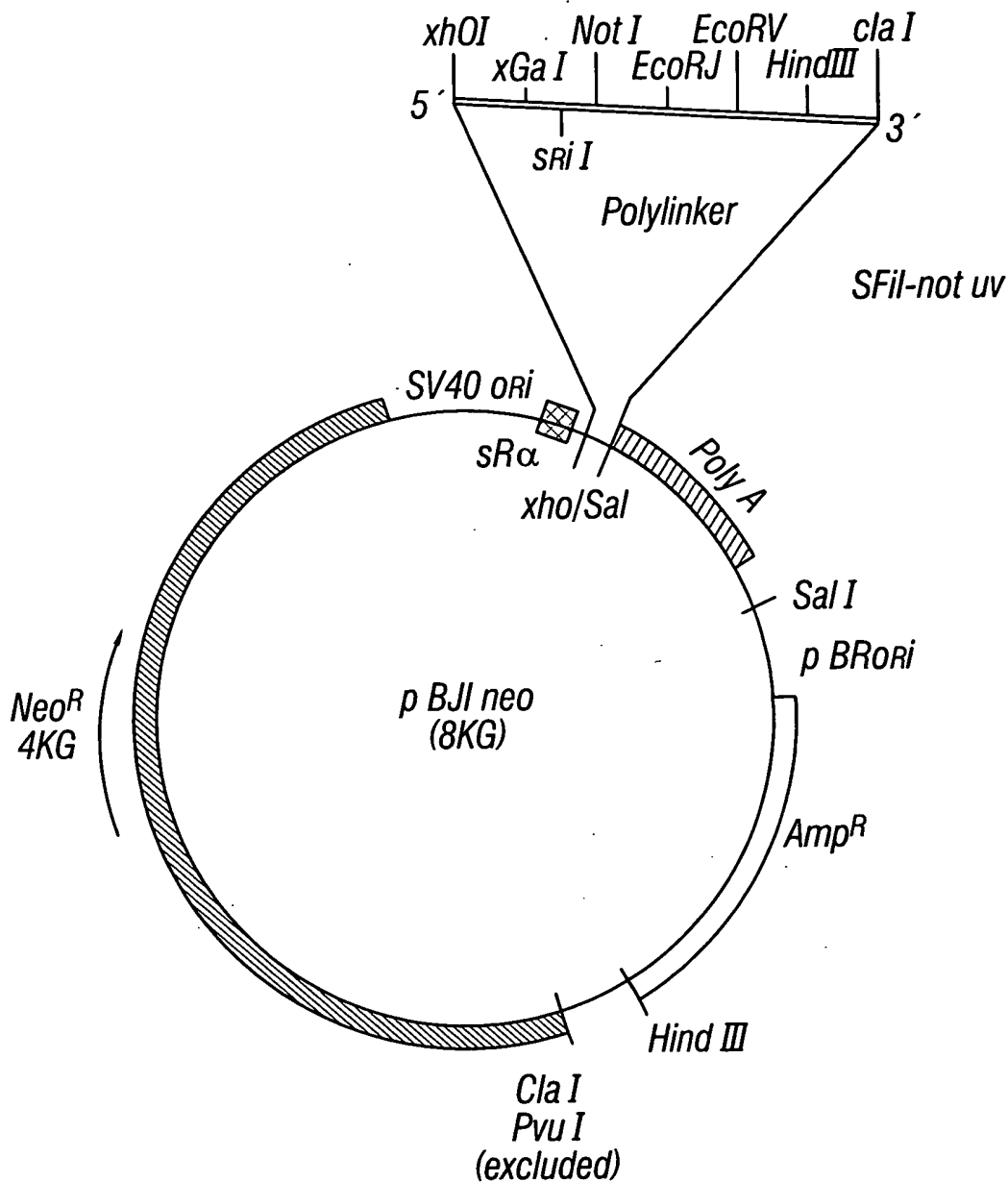


FIG. 8

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APPROVED	O.G. FIG.
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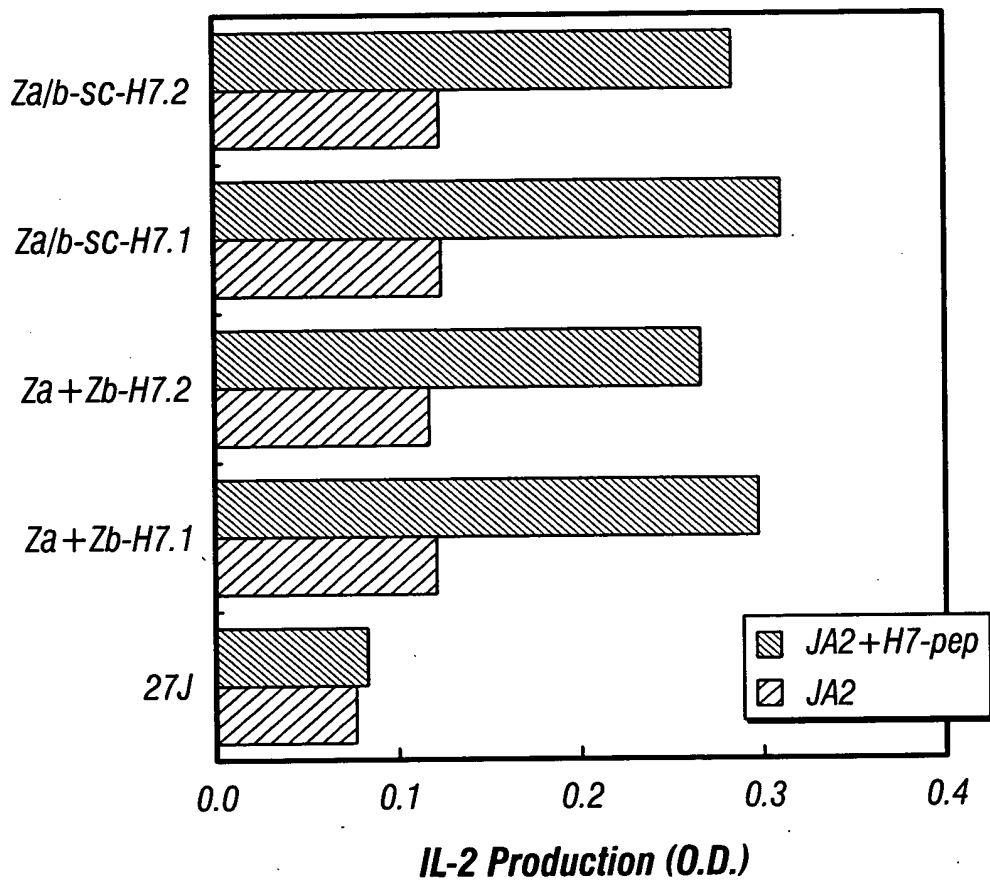


FIG. 9

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
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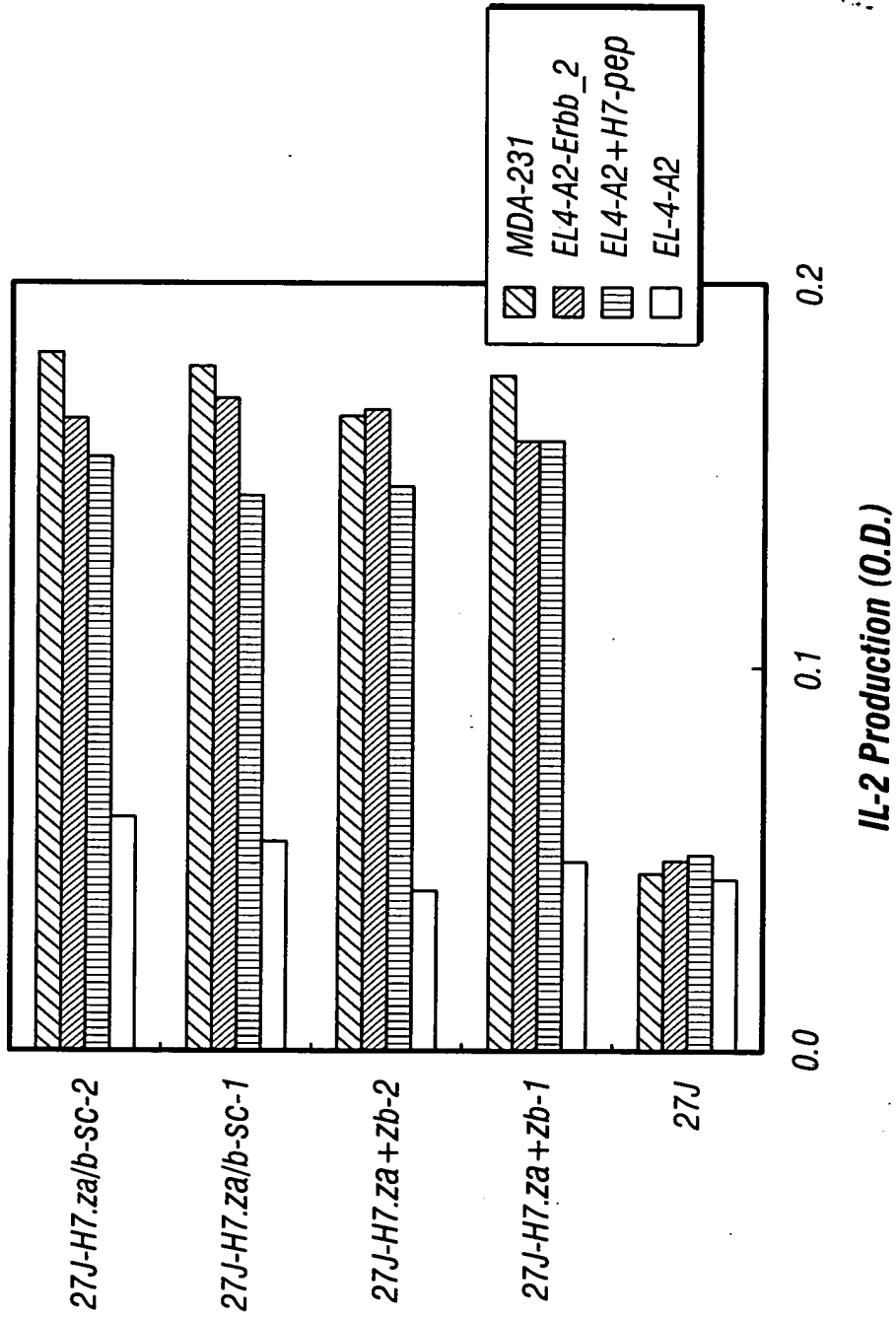


FIG. 10